## **ABSTRACT OF THE DISCLOSURE**

The invention comprises a method and apparatus (1) for drying bulk material, especially bark, sawdust, pretreated sludge or a mixture of these. The invention also comprises a method and apparatus for cooling waste water produced in a pulp or paper production process. The invention furthermore comprises a pulp mill, paper mill and a novel way of using a wire (21). According to the invention, in one and the same heat exchanger (13) both waste water produced in a pulp or paper production process is cooled and, simultaneously, gas that cools the waste water is heated. Heated gas extracted from the heat exchanger (13) is conducted through one or several drying conveyers (15) and through the material to be dried that is conveyed on the drying conveyer (15), whereby said material is dried with the heated gas.